

Balancing Act: The Myth about White Balance

Why setting white balance at the time of capture has nothing to do with getting it right.

By Andy Armstrong

There is no reason to set white balance at the time of capture. That's right. That's what I wrote. If you shoot raw, there is absolutely no reason to set white balance at the time of capture. It's a waste of the time and energy you should be devoting to your clients during a shoot.

If I've heard it once, I've heard it a million times. A good image always starts with getting in right in camera, and there's always a list of things that one has to do to "get it right in camera" that goes along with the statement - interesting composition, good lighting, proper exposure, aesthetically pleasing and appropriate aperture, and - *wait for it* - white balance. Yes, that laundry list for "getting it right in camera" has almost always included white balance. And for years now, photographers have claimed that if you don't get one of the many things in the list "right" at the time of capture, then either your image isn't good or you have to "fix it" in post.

Ah, the dreaded "fix it" statement - the one that's been used to denote an inability to "get it right" at the time of capture - the one that deflates so many new photographers.

Don't get me wrong. The list is important. It's made up of actions that you can't get back after the time of capture.

There is very little leeway to recompose after capture. You can't re-light an image after capture. Over and underexposure cause image damage when you attempt to "fix it" in post, and you can't really change your depth of field or refocus on a new plane after capture (at least not the way a lens would), but what about white balance?

White balance is an interpretation of color temperature that allows the end-viewer to see color as it appears in reality. Unlike all of the

other items in the list, it isn't locked in at capture, unless you choose to lock it in.

In fact, your camera captures only light and color in general terms. You choose to allow a computer to assign a color temperature filter to that data either at the time of capture or in post-production.

Let me say that again, so it can really sink in. You choose to allow a computer to assign a color temperature filter to your data. White balance is created by the filter you assign to the data either with your camera or with your computer in post-production.

If you shoot JPG, then you have chosen to apply a color temperature filter provided by your camera at the time of capture. If you shoot Raw, then you have chosen to store all of the light and color data and view it on your camera with a color temperature filter, but unlike a JPG image, you have not permanently compressed that filter into your image data.

All of the light and color data captured by your camera is still completely intact within the Raw image data. You may choose to apply a color temperature filter at any time without harming or changing the original data collected at the time of capture. In other words, when and how you set your white balance is up to you, and it has nothing to do with not "getting it right in camera" or "fixing it" in post.

To say that setting white balance at the time of capture is a requirement of "getting it right in camera," would be as absurd as saying that assigning a cropping ratio or even a final crop at the time of capture is a requirement of "getting it right in camera."

You aren't "fixing" your image when you choose a cropping ratio or a final crop in post. You are deciding how you want to display your final image, and you aren't "fixing" your image when you set your white balance. You're making a

decision about how you want to display your final image.

If you don't feel the need to assign a final crop to an image at the time of capture, then why do we require that you assign a color temperature filter at the time of capture?

The reasoning is simple, and it stems from color film capture and the beginnings of digital capture.

When photography relied on color film, the photographer had to choose an appropriate color film temperature or lens/light filter before making images. If he was going to shoot in daylight, he was required to choose (in advance) to use daylight film. If he was going to shoot in tungsten light, he was required to choose (in advance) to use tungsten film. And, if by chance he needed to use the daylight film in a tungsten lighting situation, he had to choose to use a lens filter to adjust the color temperature.

In the beginnings of digital capture, digital cameras captured JPG images, and JPG requires that you choose and assign a color temperature filter (or white balance) in advance of making an image. In other words, the camera's onboard computer compressed color temperature filter information into the image file itself in order to compress file size. If you forgot to assign that color temperature filter before capture, then it was a nightmare to later extract and change that information after the fact.

White balance has historically been part of the "getting it right in camera" list, because it had to be part of the list, but not anymore.

Modern DSLR's capture and share the raw image data (Raw files as we know them), and they do not compress, attach, or even require that the color temperature filter be determined or assigned at the time of capture. In essence, setting white balance should no longer be a part of "getting it right in camera" list, and there is absolutely no reason to set white balance at the time of capture.

I no longer waste time or energy setting white balance when I'm working with a client. I don't carry extra equipment (gray cards or color wheels), and I don't set custom white balance on location or on set. In fact, I don't worry about white balance at all when I'm shooting.

Instead, I use the time and energy I would have lost to setting white balance to focus my attention on my portrait clients and commercial projects. I use that time to make sure I'm focused on doing the things that really should be on the "getting it right in camera" list. I choose to make a decision about the interpretation of my raw color data in post, when a client doesn't need my attention or energy.

Beyond that, color is subjective, and with a calibrated monitor, I can more succinctly choose the color temperature interpretation that best suits the image style, without any harm/loss to the original Raw image data. In fact, I use Adobe Lightroom or Adobe Camera Raw (through Bridge) to quickly set and sync the white balance of my images in less time than it would take to do a custom white balance on location.

Setting white balance before capture is a myth that has been perpetuated for far too long. If you work with raw image data, there is absolutely no reason to determine white balance at the time of capture. It's a waste of time and energy that could be devoted to really "getting it right in camera" and creating great images.

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